

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

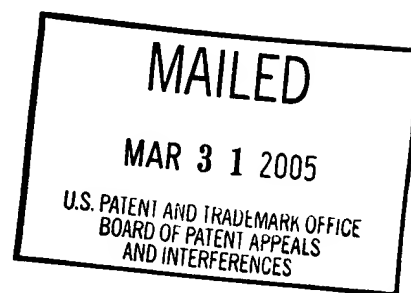
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte GERALD G. GIRALDI

Appeal No. 2005-0765
Application No. 09/844,989

ON BRIEF



Before COHEN, PATE, and NASE, Administrative Patent Judges.

PATE, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-22. We note that there is a difference of opinion between the appellant and the examiner as to what claims remain in the application and what claims are on appeal. The review of the record shows that claims 3, 6, 9, 14 and 19 have not been cancelled. The examiner apparently states on page 3 that these claims are still pending. The examiner has further included these

claims in the rejection in the examiner's answer. Accordingly, we will consider claims 1-22 as the claims subject to appeal.

The claimed invention is directed to a golf club with a toe end and a heel end wherein the loft angle configuration continuously varies from a positive loft angle to a negative loft angle. The golf club head further includes a non-metallic insert in at least a portion of the face surface.

The claimed invention may be further understood with reference to the appealed claims appended to the appellant's brief.

The references of record relied upon by the examiner as evidence of obviousness are:

MacKeil	5,098,103	Mar. 24, 1992
Viollaz et al. (Viollaz)	5,310,185	May 10, 1994
Turner	5,322,285	Jun. 21, 1994
Stuff	5,505,450	Apr. 9, 1996
Werner et al. (Werner)	6,319,150	Nov. 20, 2001
		(filed May 25, 1999)

Claims 1-22 stand rejected under 35 U.S.C. § 103 as unpatentable over Stuff in view of Turner and MacKeil.

Claims 10, 15, 20 and 21 stand rejected under 35 U.S.C. § 103 as unpatentable over Stuff in view of Turner, MacKeil, Viollaz and Werner.

The details of these rejections can be had by reference to the examiner's answer. Appellant's response to these rejections may be reviewed with reference to the appeal brief.

OPINION

The following comprises our findings of fact with respect to the scope and content of the prior art and the differences between the prior art and the claimed subject matter. Stuff discloses a putter head comprising a putter body with a toe end 78, a heel end 80, and a face surface 72. A non-metallic insert 73 is disposed in at least a portion of the face surface. Stuff further discloses that several means such as resilient inserts and non-parallel grooves, can be utilized together to impart corrective action to a golf ball when struck. See col. 3, lines 55-58. Stuff does not disclose varying the loft angle of the face surface from a positive loft angle to a negative loft angle as said face surface extends from the heel end to the toe end.

Turner discloses a putter that has a compound face surface to compensate for hits outside the sweet spot. The loft of the face surface varies from a closed toe area with a greater loft to an open heel area with a lesser loft in the Figure 6 embodiment. The transition in loft angles does not appear to be smooth. However, Turner teaches varying the loft on the club face for the same reason that Stuff provides non-parallel

grooves, to modify the behavior of a golf ball when struck outside the sweet spot.

Turner does not disclose a resilient insert.

MacKeil also shows a golf club, this time with a constantly changing loft angle. MacKeil indicates that this teaching is not applicable to a putter. We further note that MacKeil teaches a constantly changing loft angle that avoids a concavity and is legal under the rules of the USGA. MacKeil does not disclose a resilient insert.

Viollaz discloses a club head with an insert of carbon fiber or aramid fiber in resin. The insert face is configured with a convex surface which ensures good ball trajectory. Werner also shows a club face wherein the club face striking surface is made thicker at the center where the bending stresses are greatest and which taper in thickness to the outer edges of the face where the stresses are less. Alternatively, similar center thickness increases can be attained using honeycombed or ribbed structures as long as variations in wall thicknesses are maintained according to the invention. For example, as shown in Figure 9, the individual walls 89A are varied in length to permit a bulge portion 91 to be formed in the center portion of the club head. The face skin 87 and the rear skin 88 also can be varied in thickness for changing strength characteristics. See col. 6, lines 30-34.

From the above cited references we find that the level of skill in the golf clubhead art is high, and sophisticated shapes and sophisticated materials are commonly used in this art.

In our view, one of ordinary skill in the golf club art would not have found it obvious to combine the applied references in the manner proposed by the examiner at the time the invention was made, for the following reasons. First, Stuff, although showing a resilient insert, uses a flat club face surface with parallel grooves rather than club face loft angle for correction of mishit balls. While Turner does use loft as a corrective for mishit putts, the loft angle is not smoothly variable across the putter face. Turner shows three discrete areas, one with negative loft, one with positive loft and one with no loft. If the loft angles of Turner were combined on the club of Stuff, no continuously variable loft face would result. Finally, MacKeil actually teaches away from using his club face with its loft angles on a putter. In two separate locations in Column 1, MacKeil states that his invention is not applicable to a putter. One of ordinary skill following the express teaching of MacKeil would not combine MacKeil's features with the putters of Stuff or Turner.

The other applied references do not provide evidence that ameliorates the shortcomings enumerated above. Accordingly, the rejections of claims 1-22 are reversed.

REMAND

Regarding claims 17-22, the application on appeal is hereby remanded to the examiner for consideration of the combined teachings of MacKeil and Werner. Unlike claims 1-16, these claims are not directed to a putter only, and the teachings of MacKeil with regard to club face geometry appear to be applicable to a club with a non-metallic insert of laminate layers as disclosed by Werner. Note that Werner, for the reasons of strength and club feel varies the thickness of the insert along an imaginary, generally horizontal line that runs down the face of the club.

In summary, the obviousness rejections of all claims on appeal are reversed.
The case is remanded to the examiner for consideration of the patentability of claims
17-22.

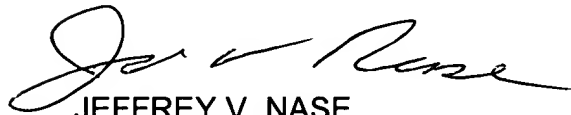
REVERSED AND REMANDED



IRWIN CHARLES COHEN
Administrative Patent Judge



WILLIAM F. PATE, III
Administrative Patent Judge



JEFFREY V. NASE
Administrative Patent Judge

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